

Psychosocial predictors of risk of hepatitis C (HCV) re-infection in people who inject drugs on HCV treatment.

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Introduction

The risk of HCV re-infection in people who inject drugs (PWID) treated for HCV remains high when sharing of injecting equipment continues to occur post-treatment.

Literature suggests psychosocial factors influence injecting risk behaviour, whilst social identity isolation is linked to poor physical and mental health^{a,b}. This study investigates the role of psychosocial factors on risk behaviour during HCV treatment.

Methods

This cross-sectional pilot study included 36 participants on treatment for HCV. Correlation analyses informed the association of group identification, mental health and illness perception with sharing injecting equipment.



A multiple regression tested the model under investigation. Only factors with a strong correlation to sharing behaviour were included.

Results

Table 1: Participants' characteristics

Characteristics	Study population (N=36)
Female sex	27.8%
Age, mean (SE)	37.8 (1.19) years
Weekly injecting frequency (SE)	8.44 (1.63)
Shared equipment in past 4 weeks (when asked general sharing question)	19.4% (reported 1 or 2 people)
Shared equipment in past 4 weeks (when asked specifically about each piece of equipment)	36.1% (reported between 1 and 4 people)

Table 2: Pearson's correlations between factors (n=36)

	Sharing	Depression Score	Anxiety Score	PTSD Score	Illness Perception	GIS Family	GIS Drug Network	Injecting frequency
Sharing	1 (n=36)							
Depression Score	-.18 ns	1 (n=36)						
Anxiety Score	-.18 ns	.811** p<.001	1 (n=36)					
PTSD Score	-.3 p=.078	.722** p<.001	.733** p<.001	1 (n=36)				
Illness Perception	-.19 ns	.481** p=.003	.377* p=.024	.384* p=.021	1 (n=36)			
GIS Family	.16 ns	-.158 ns	-.253 ns	-.2 ns	.128 ns	1 (n=36)		
GIS Drug Network	-.4* p=.017	-.202 ns	-.268 ns	-.3 p=.076	.165 ns	.274 ns	1 (n=36)	
Injecting frequency	-.41* p=.013	-.247 ns	.016 ns	.001 ns	-.277 ns	.087 ns	.302 p=.073	1 (n=36)

ns= non significant (p<.05); * = Significant p<.05; ** = High significance (p<.01)
PTSD= Post Traumatic Stress Disorder; GIS = Group Identification Scale

A ceiling effect was observed for mental health variables (Table 2). All 3 mental health variables correlated strongly to each other suggesting a degree of overlap in the constructs measured (depression, anxiety and Post Traumatic Stress Disorder).



The regression model was a good fit for the data, $F(3,26)=11.48$, $p<.001$. Group identification with drug network ($\beta= -0.06$, $p=0.07$) and injecting frequency ($\beta= -0.02$, $p=0.05$) were the only baseline predictors used in the model and both approached significance level.

The model explained 25% (R²) of variance in sharing behaviour.

Source: Maven.co

Discussion

Reducing injecting risk behaviour in PWID is essential to improve HCV treatment cost-effectiveness and reduce risk of re-infection.

Identification with a social group, usually associated with improved health, may pose health risks depending on the type of group identification. Interventions on social networks are recommended to reduce sharing of injecting equipment. Decreasing injecting frequency is also key to reducing equipment sharing behaviour.

The results also suggest a need to ask specific equipment questions when asking PWID about equipment sharing behaviour.

Recruitment is ongoing in order to increase the sample size and strengthen the power of the results.

References

^aLatkin et al. (2011). The relationship between social network factors, HIV, and Hepatitis C among injection drug users in Chennai, India. *Drugs & Alcohol Dependence*, 117: 50-54.

^bSani, F. et al. (2014). Greater number of group identifications is associated with healthier behaviour: Evidence from a Scottish community sample. *British Journal of Health Psychology*, 20: 466-481

Disclosure of Interest

AM, FS, AE & KP declare no conflict of interest. JFD has received honoraria for lectures and research grants from Janssen-Cilag, Roche, Merck Sharp & Dohme, AbbVie, Bristol-Myers Squibb and Gilead Sciences.

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